Hybrid Optimization Model for Electric Renewables (HOMER)

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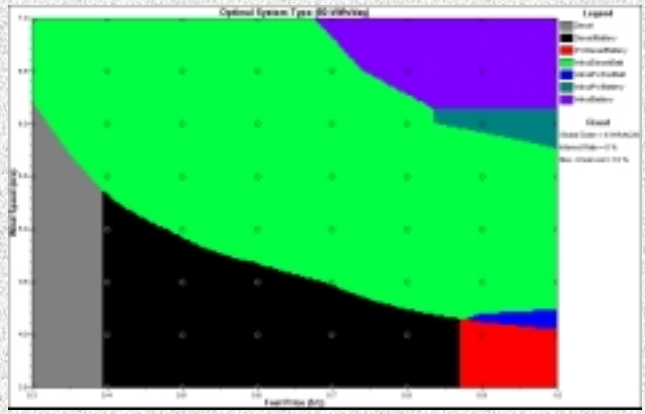
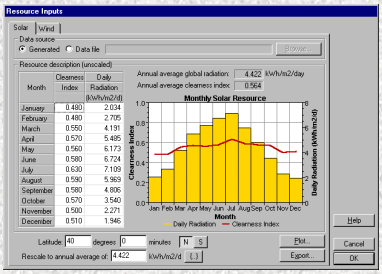
HOMER: The Hybrid Optimization Model for Electric Renewables

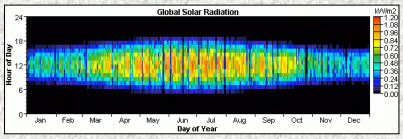
HOMER is an optimization model for designing stand-alone electric power systems. Given load data, resource data, and component costs, it designs the optimal hybrid system.

HOMER can model any combination of:

- Wind turbines
- Photovoltaic (PV) panels
- Backup generator
- Battery storage



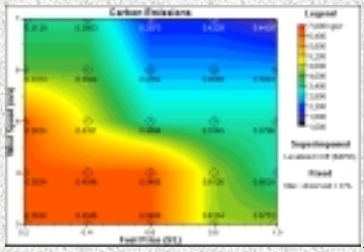


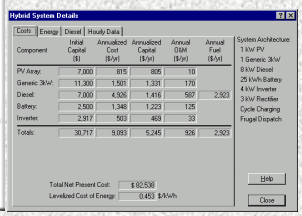


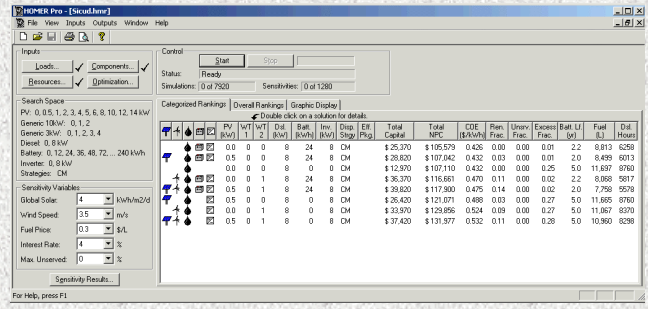
Speed, Power, and Integrated Graphics

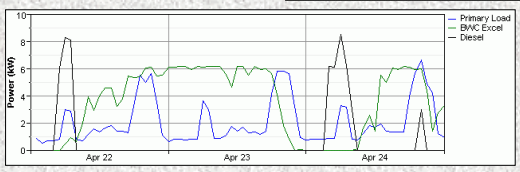
HOMER has many powerful features:

- Thousands of full hourly simulations can be performed per minute.
- Solar and wind data can be synthesized from monthly averages.
- Load management options can be considered.
- Sensitivity analyses can be performed on many inputs at once.
- Colorful graphics assist in the analysis of results.
- Complete on-line documentation is available.









- HOMER Pro, HOMER Express, and Village Power for Renewables (ViPOR) make up NREL's Village Power Planning Model Suite.
- ViPOR is a separate model that optimizes minigrids versus stand-alone systems.
- Fully functional, no-cost versions are available at: http://www.nrel.gov/international/homer
- There are currently 300 users in 55 countries.
- For further information contact:
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